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The Effect of Financial Ratio on Financial Distress in Banking Companies Listed on The IDX Year 2018–2022

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ABSTRACT

The number of banks are trying to sell their assets that had deteriorated before the Covid-19 pandemic through bulksales or wholesale sales. This step is expected to immediately reduce the bank's Non-Performing Loan (NPL) ratio significantly. One of them is PT Bank Tabungan Negara Tbk (BTN). The bank is exploring the sale of NPLs in bulksales through an asset swap scheme or exchanging assets for securities. The purpose of the study was to analyze the effect of CAR, NPL, LDR, ROA, DAN BOPO partial and simultaneous events on Financial Distress in banking companies listed on the IDX in 2018 – 2022. The sample selection method uses the Purposive Sampling method so as to get 35 banking companies. The research method uses multiple linear regression analysis. The results of this study show that (1) CAR, LDR, ROA have a significant positive effect on Financial Distress (2) NPL, BOPO have no significant effect on Financial Distress (3) CAR, NPL, LDR, ROA, DAN BOPO simultaneously affect Financial Distress.

Keywords: *Financial Distress, CAR, NPL, LDR, ROA*

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1. INTRODUCTION

A number of banks are trying to sell their assets which had deteriorated before the Covid-19 pandemic through bulk sales or wholesale sales. It is hoped that this step will immediately reduce the bank's non-performing loan (NPL) ratio significantly. One of them is PT Bank Tabungan Negara Tbk (BTN). This bank is exploring selling NPLs in bulk sales through an asset swap scheme or exchanging assets for securities. The company targets NPL sales of IDR 1 trillion this year through this scheme.

BTN's NPL ratio has actually been sloping at the end of 2021, reaching 3.7%, but in June 2022 it has fallen to 3.54% or IDR 10.13 trillion. However, several credit segments of this bank still have quite high NPLs, namely corporate loans in the housing sector and non-housing commercial loans. In the construction credit segment, BTN recorded an NPL of 23.11% as of June this year, up from 21.29% at the end of last year. NPL in this segment began to increase sharply since 2018 to 7.13%, then rose 18.71% in 2019 and 19.58% in 2020. Meanwhile, commercial credit NPL reached 10.88% as of June, down from 15.26% in end of 2021.

Undang-Undang RI nomor 10 tahun 1998 concerning banking, defines banks as business entities that collect funds from the public in the form of savings and distribute them to the public in the form of credit and/or other forms with the aim of improving people's welfare. In simple terms, a bank is defined as a financial institution whose business activities include collecting funds from the community and redistributing them to the community, as well as providing other financial services.

2. METHODS

The objects of this research are banking companies listed on the Indonesia Stock Exchange (BEI). The research period is from 2018 - 2022 using financial report data taken

from the website www.idx.co.id. This research was carried out in 2023. The population in this research is Conventional Banking Companies listed on the Indonesia Stock Exchange (BEI) for the period 2018 - 2022, totaling 40 banking companies. The sampling method uses purposive sampling.

3. RESULTS AND DISCUSSION

Result

Table 1. Descriptive Statistics Calculation Results

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
Financial Distress	135	-1.96	7.20	1.6821	0.98986
CAR	135	0.00	106.10	25.6329	14.01034
NPL	135	0.01	9.63	2.7618	2.02695
LDR	135	2.57	3255.25	113.7298	281.77163
ROA	135	-5.34	4.16	0.9944	1.51308
BOPO	135	12.42	177.35	57.3369	30.42990
Valid N (listwise)	135				

Source: Processed Secondary Data (2024)

Based on Table 1, with a total sample of 35 companies, it can be seen that:

a. The CAR variable has an average (mean) value of 25.6329, which shows that the average or mean value in this company is 25.6329.
b. The average (mean) value of the NPL variable is 2.7618, which shows that the average or mean value in this company is 2.7618.
c. The average (mean) value of the LDR variable is 113.7298, which shows that the average or mean value in this company is 113.7298.
d. The average (mean) value of the ROA variable is 0.9944, which shows that the average or mean value in this company is 0.9944
e. The average (mean) value of the BOPO variable is 57.3369, which shows that the average or mean value in this company is 57.3369
f. The average (mean) value of the Financial Distress variable is 1.6821, which shows that the average or mean value in this company is 1.6821

Tabel 2. One-Sample Kolmogrof-Smirnof Test Results

One-Sample Kolmogorov-Smirnov Test		
		Unstandardized Residual
N		135
Normal Parameters[a,b]	*Mean*	0.0000000
	Std. Deviation	0.62273027
Most Extreme Differences	Absolute	0.068
	Positive	0.060
	Negatif	-0.068
Test Statistic		0.068
Asymp. Sig. (2-tailed)		.200[c,d]

Source: Processed Secondary Data (2024)

Based on table 2, it is known that the value of asymp.sig. (2-tailed) is 0.200, which means it is greater than 0.05, so the regression model is normally distributed because 0.200 > 0.05.

Tabel 3. Hasil Uji Multikolinearitas

Coefficients[a]						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	0.281	0.186		1.510	0.133
	CAR	0.029	0.004	0.406	6.967	0.000
	NPL	0.020	0.030	0.040	0.660	0.511
	LDR	0.001	0.000	0.345	5.970	0.000

ROA	0.298	0.040	0.455	7.374	0.000
BOPO	0.003	0.002	0.096	1.654	0.100

a. Dependent Variabel: *Financial Distress*

Source: Processed Secondary Data (2024)

Based on table 3, it can be seen that the tolerance value in this study is above 0.10 and the VIF is smaller than 10. So the regression model in this study has no symptoms of multicollinearity because the tolerance value is > 0.10 and VIF < 10.

Table 4. Autocorrelation Test Results

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	0.849[a]	0.720	0.709	0.50439	1.956

a. Predictors: (Constant), LAG_X5, LAG_X3, LAG_X2, LAG_X1, LAG_X4

b. Dependent Variabel: LAG_Y

Source: Processed Secondary Data (2024)

Based on table 4, it is known that the Durbin Watson value is (1.881), the comparison uses a significant value of 5%, the number of samples (n) is 35, and the number of independent variables is 5 (k=5), then in the Durbin Watson table the DU value is obtained (1.7962). Because the Durbin Watson value (1.956) > the upper limit of DU (1.7962) and < 4 – 1.7692 (2.2308), it is concluded that there is no autocorrelation.

Table 5. Heteroscedasticity Test Results using Glejser

Coefficients[a]

Model		t	Sig.
1	(Constant)	4.463	0.000
	CAR	1.385	0.168
	NPL	-0.212	0.833
	LDR	-0.940	0.349
	ROA	-2.714	0.008
	BOPO	-1.221	0.224

a. Dependent Variabel: ABRESID

Source: Processed Secondary Data (2024)

Based on Table 5, it can be seen that the significant value of the Independent variable shows a sig value greater than 0.05, which means that in this study there was no heteroscedasticity problem.

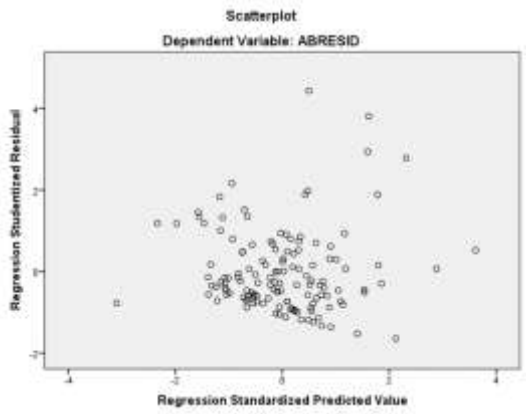

Figure 1. Heteroscedasticity Test Results Using Scatterplot

Source: Processed Secondary Data (2024)

Based on Figure 1, it can be seen that the points spread above and below the number 0 on the Y axis and the scatterplot distribution does not form a certain regular pattern (wavy, widening then narrowing). So it can be concluded that in this study there was no heteroscedasticity.

Table 6. Multiple Linear Regression Analysis Test Results

Coefficients[a]			
Model		Unstandardized Coefficients	
		B	Std. Error
1	(Constant)	0.281	0.186
	CAR	0.029	0.004
	NPL	0.020	0.030
	LDR	0.001	0.000
	ROA	0.298	0.040
	BOPO	0.003	0.002

a. Dependent Variabel: *Financial Distress*

Source: Processed Secondary Data (2024)

Based on table 6, the regression equation model can be seen as follows:

$Y= 0{,}281 + 0{,}029X^1 + 0{,}020X^2 + 0{,}001X^3 + 0{,}289X^4 + 0{,}003X^5$

Based on the regression equation above, it can be explained that:

a. If the variable values for information asymmetry, audit quality, audit committee and company size are at constant values (not changing), then Financial Distress as measured using the Altman Z-Score will increase by 0.281.
b. The regression coefficient value for the CAR variable shows a positive result of 0.029, which means that every one unit increase in the CAR variable will increase Financial Distress by 0.029. This means that the higher the CAR in a company can increase Financial Distress.
c. The regression coefficient value for the NPL variable shows a positive result of 0.020, which means that every one unit increase in the NPL variable will increase Financial Distress by 0.020. This means that the higher the NPL in a company can increase Financial Distress.
d. The regression coefficient value for the LDR variable shows a positive result of 0.001, which means that every one unit increase in the LDR variable will increase Financial Distress by 0.001. This means that the higher the LDR in a company can increase Financial Distress.
e. The regression coefficient value for the ROA variable shows a positive result of 0.289, which means that every one unit increase in the ROA variable will increase Financial Distress by 0.289. This means that the higher the ROA in a company can increase Financial Distress.
f. The regression coefficient value for the BOPO variable shows a positive result of 0.003, which means that every one unit increase in the BOPO variable will increase Financial Distress by 0.003. This means that the higher BOPO in a company can increase Financial Distress.

Table 7. Coefficient of Determination Test Results (R^2)

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	0.849[a]	0.720	0.709	0.50439	1.956

a. Predictors: (Constant), LAG_X5, LAG_X3, LAG_X2, LAG_X1, LAG_X4

b. Dependent Variabel: LAG_Y

Source: Processed Secondary Data (2024)

Based on table 7, the results of the analysis of the coefficient of determination show that the adjusted R^2 is 0.720 or 72%. This means that 72% is the ability of the regression model in this research to explain the dependent variable. This means that 72% of the Financial Distress variable is explained by variations in the independent variables, namely CAR, NPL, LDR, ROA, BOPO.

Table 8. Partial Test Results

Coefficients[a]				
Model		t	Sig.	Keterangan
				Nilai sig <0,05 H1 diterima
				Nilai sig >0,05 H1 ditolak
1	(Constant)	1.510	0.133	
	CAR	6.967	0.000	H1 diterima
	NPL	0.660	0.511	H1 ditolak
	LDR	5.970	0.000	H1 diterima
	ROA	7.374	0.000	H1 diterima
	BOPO	1.654	0.100	H1 ditolak

a. Dependent Variabel: *Financial Distress*

Source: Processed Secondary Data (2024)

Based on Table 8, the influence of each variable can be seen with the following description:

a. The CAR variable obtained t-count (6.967) > t-table (1.987) with a significant value (0.000), because t-count (6.967) > t-table (1.987) and a significant value of 0.000 < 0.05, then H1 was accepted. This shows that the CAR variable partially has a significant effect on Financial Distress.
b. The NPL variable obtained t-count (0.660) < t-table (1.987) with a significant value (0.511), because t-count (0.660) < t-table (1.987) and the significant value (0.511) > 0.05 then H1 is rejected. This shows that the NPL variable partially does not have a significant effect on Financial Distress.
c. The LDR variable obtained t-count (5.970) > t-table (1.987) with a significant value (0.000), because t-count (5.970) > t-table (1.987) and the significant value (0.000) < 0.05 then H1 is accepted. This shows that the LDR variable partially has a significant effect on Financial Distress.
d. The ROA variable obtained t-count (7.374) > t-table (1.987) with a significant value (0.000), because t-count > t-table with a significant value (0.000) < 0.05, then H1 was accepted. This shows that the ROA variable partially has a significant effect on Financial Distress.
e. The BOPO variable obtained t-count (1.654) < t-table (1.987) with a significant value of (0.100), because t-count (1.654) < t-table (1.987) and the significant value (0.100) > 0.05 then H1 rejected. This shows that the BOPO variable partially has no significant effect on Financial Distress.

Table 9. Simultaneous Test Results

ANOVA[a]			
Model		F	Sig.
1	Regression	39.388	.000[b]
	Residual		
	Total		

a. Dependent Variabel: *Financial Distress*

b. Predictors: (Constant), BOPO, NPL, LDR, CAR, ROA

Source: Processed Secondary Data (2024)

Based on table 9, it can be seen that F-count (39.388) > F-table (2.20) with a significant value (0.000), because F-count (39.388) > F-table (2.20) and a significant level of 0.000 < 0 .05 which means H6 is accepted. These results show that the CAR, NPL, LDR, ROA and BOPO variables together simultaneously have a significant effect on Financial Distress.

4. CONCLUSION

This research discusses the influence of financial ratios on Financial Distress in banking companies listed on the IDX for the 2018-2022 period. Using multiple linear regression analysis method. There were 40 populations and 35 banking companies were used as research samples in accordance with the criteria used, namely purposive sampling. Based on the research results explained in the previous chapter, the conclusions that can be drawn from this research are as follows:

1. CAR partially has a significant effect on Financial Distress, because banking companies are able to manage their capital to bear all risks that arise due to risky assets/prices. This will reduce the possibility of a bank experiencing Financial Distress conditions. The results of the research conducted show that the CAR variable has an effect on Financial Distress.
2. Partial NPL does not have a significant effect on Financial Distress. This is because the bank's ability to manage the risk of failure to repay credit by debtors has not been able to limit the occurrence of Financial Distress. This indicates that most banking companies are still unable to manage their income, resulting in an increase or decrease in profitability and banks incur high costs for bank reserves.
3. LDR partially has a significant effect on Financial Distress. The LDR ratio in banking companies has proven to be effective in preventing financial distress. With the research results, the LDR variable partially has a significant effect on Financial Distress. In this research, banking companies have more customer deposits than loans (credit) given. This means that the existence of the LDR ratio in banking companies has proven to be effective in preventing Financial Distress. The LDR ratio can help a company measure the bank's ability to repay withdrawals made by depositors by relying on credit provided as a source of liquidity, thereby minimizing the occurrence of Financial Distress in a company.
4. ROA partially has a significant effect on Financial Distress. The ROA ratio in banking companies has proven to be effective in preventing Financial Distress, with the existence of the ROA ratio which is used to measure a company's ability to generate higher profits at a certain level of sales which is used as an indicator of Financial Distress. However, a high profitability value does not necessarily indicate that the company has low expenses, in this case researchers suspect that there are earnings management practices to deceive stakeholders who want to know the condition of the company's financial reports. This proves that the ROA ratio shows the comparison of the net profit generated with the capital invested in assets. ROA describes all activities in the company. This shows how effectively capital expenditure on owned assets produces profits for the company.
5. BOPO partially has no significant effect on Financial Distress. This is due to the comparison between operational costs and operational income in measuring the level of efficiency and ability of the bank in carrying out its operational activities. This indicates that most banking companies are still unable to manage the operational costs incurred to generate good income to carry out the main activity costs in their business.
6. The variables CAR, NPL, LDR, ROA, AND BOPO together influence Financial Distress. The variables CAR, NPL, LDR, ROA, AND BOPO have an influence of 72% on Financial Distress, and 28% are other factors outside the model that explain the dependent variable. This means that there is a significant influence from the combination of CAR, NPL, LDR, ROA, AND BOPO variables so that they can influence Financial Distress.

IMPLICATION

Based on the conclusions outlined in this research, implications regarding Financial Distress can be conveyed. The research results show that there are three variables that influence Financial Distress, namely CAR, LDR, ROA. For this reason, efforts need to be made by investors and management regarding Financial Distress, such as:

1. Investors are more careful in looking at the financial reports presented by banks, especially capital, asset risks faced, the bank's ability to repay funds withdrawn by depositors by relying on credit provided as a source of liquidity and the existence of earnings management practices in a company, as well as making financial reports presented as consideration before making an investment.
2. Company management further improves the management control function, which is a system that functions to control all operational activities that occur in a company, manage capital so that it is able to bear the risk of risky assets, is able to manage credit to pay for withdrawals by depositors, and is able to manage expenses and assets in order to obtain maximum funds so that company activities can run according to the stated objectives.

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